

**REMARKS**

The Official Action mailed May 24, 2006 has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on October 20, 2003.

Claims 1-30 are pending in the present application, of which claims 1-3, 7 and 9 are independent. Claims 1-3, 5, 7, 9, 12-15 and 26-30 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action provisionally rejects claims 1, 2, 16, 17, 21, 22, 26 and 27 under the doctrine of obviousness-type double patenting over claims 1, 2, 9, 10, 13, 14, 17 and 18 of copending Application Serial No. 10/687,655. As is discussed in greater detail below, the independent claims have been amended to better recite the features of the present invention. In light of this amendment, the Applicant respectfully traverses this ground for rejection and reconsideration of the pending claims is respectfully requested. In any event, the Applicant respectfully requests that the double patenting rejections be held in abeyance until an indication of allowable subject matter is made in the present application. At such time, the Applicant will respond to any remaining double patenting rejections.

Paragraph 4 of the Official Action objects to claims 26-30 regarding a minor informality and suggests that "an electronic equipment" be changed to "electronic equipment" (page 4, Paper No. 20060508). In response, claims 26-30 have been amended in accordance with the Examiner's suggestion. Reconsideration of the objection is requested.

Paragraph 5 of the Official Action rejects claims 1, 11 and 16 as anticipated by U.S. Patent Application Publication No. 2002/0145602 to Matsueda. The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claim 1 has been amended to recite a pixel portion comprising a first thin film transistor over a substrate; and a switching regulator control circuit comprising a second thin film transistor over the substrate, which is supported in the present specification, for example, by page 1, lines 19-27; and page 2, line 31, through page 3, line 8. That is, claim 1 recites that a pixel portion comprising a first TFT and a switching regulator control circuit comprising a second TFT are formed over the same substrate. For the reasons provided below, the Applicant respectfully submits that Matsueda does not teach the above-referenced features of the present invention, either explicitly or inherently.

The Official Action appears to assert that pixel TFT 6 of Matsueda corresponds with the switching regulator control circuit of the present claims (pages 4-5, Paper No. 20060508). Although Matsueda appears to teach a pixel thin film transistor 6 in a display portion in Figure 1, Matsueda does not teach both a pixel portion comprising a first thin film transistor 6 over a substrate; and a switching regulator control circuit comprising a second thin film transistor over the substrate, either explicitly or inherently.

Since Matsueda does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 8 of the Official Action rejects claims 2, 3, 6, 12, 13, 17 and 18 as obvious based on U.S. Patent Application Publication No. 2002/0175662 to Sakurai. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 2 and 3 have been amended in a manner similar to claim 1. That is, claims 2 and 3 recite that a pixel portion comprising a first TFT and a switching regulator control circuit comprising a second TFT are formed over the same substrate. For the reasons provided below, Sakurai does not teach or suggest the above-referenced features of the present invention.

The Official Action appears to assert that drive power supply circuit 11, which comprises DC/DC converter control circuit 70 and DC/DC converter 34, in Figure 3 or liquid crystal drive power supply circuit 100, which comprises a DC/DC converter control circuit 120 and a DC/DC converter 130, in Figure 5 corresponds with the switching regulator control circuit of the present claims (pages 5-6, Paper No. 20060508). However, Sakurai does not teach or suggest that liquid crystal drive power supply circuit 100 comprises a thin film transistor over a substrate or that both the liquid crystal panel 180 (pixel portion) and the circuit 100 should be formed over the same substrate. Therefore, Sakurai does not teach or suggest a pixel portion comprising a first thin film transistor over a substrate; and a switching regulator control circuit comprising a second thin film transistor over the substrate.

Since Sakurai does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 9 of the Official Action rejects claims 7, 9, 10, 14, 15, 19 and 20 as obvious based on U.S. Patent Application Publication No. 2002/0044145 to Tomio. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 7 and 9 have been amended in a manner similar to claim 1. That is, claims 7 and 9 recite that a pixel portion comprising a first TFT and a switching regulator control circuit comprising a second TFT are formed over the same substrate. For the reasons provided below, Tomio does not teach or suggest the above-referenced features of the present invention.

The Official Action appears to assert that CPU 40 and internal power supply circuit 50 in Figure 5 of Tomio corresponds with the switching regulator control circuit of

the present claims (page 7, Paper No. 20060508). However, Tomio does not teach or suggest that CPU 40 and internal power supply circuit 50 comprise a thin film transistor over a substrate or that both panel 30 (pixel portion), CPU 40 and internal power supply circuit 50 should be formed over the same substrate. Therefore, Tomio does not teach or suggest a pixel portion comprising a first thin film transistor over a substrate; and a switching regulator control circuit comprising a second thin film transistor over the substrate.

Since Tomio does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 10 rejects dependent claim 4 as obvious based on the combination of Sakurai and U.S. Patent Application Publication No. 2002/0158590 to Saito. Paragraph 11 rejects dependent claim 5 as obvious based on the combination of Sakurai and U.S. Patent Application Publication No. 2003/0011586 to Nakajima. Paragraph 12 rejects dependent claim 8 as obvious based on the combination of Tomio and U.S. Patent Application Publication No. 2003/0201967 to Yu. Paragraph 13 rejects dependent claims 21 and 26 as obvious based on the combination of Matsueda and Nakajima. Paragraph 14 rejects dependent claims 22, 23, 27 and 28 as obvious based on the combination of Sakurai and Nakajima. Paragraph 15 rejects dependent claims 24, 25, 29 and 30 as obvious based on the combination of Tomio and Nakajima.

Please incorporate the arguments above with respect to the deficiencies in Matsueda, Sakurai and Tomio. Saito, Nakajima and Yu do not cure the deficiencies in Matsueda, Sakurai and Tomio. The Official Action relies on Saito, Nakajima and Yu to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Saito to allegedly teach "an inductor, diode and capacitor ... on a flexible printed circuit" (page 9, Paper No. 20060508); on Nakajima to allegedly teach "a circuit formed on a glass substrate by using thin film transistors" (page 10, Id.), that "a circuit

can be implemented in both an LCD display and an EL display device" (pages 11-13, Id.) and applying a display device to a telephone or PDA (pages 11-14, Id.); and on Yu to allegedly teach "an error amplification circuit" (page 10, Id.).

Although Saito appears to teach a switching control circuit 322 in Figure 3, Saito does not teach or suggest that the circuit 322 comprises a thin film transistor over a substrate or that both a pixel portion and the circuit 322 should be formed over the same substrate. Although Nakajima appears to teach a power saving mode control circuit 26 in Figure 13, Nakajima does not teach or suggest that the circuit 26 comprises a thin film transistor. Although Yu appears to teach a control unit 301 in Figure 3, Yu does not teach or suggest that unit 301 comprises a thin film transistor over a substrate or that both a pixel portion and the unit 301 should be formed over the same substrate.

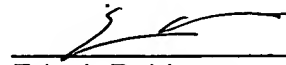
Also, Saito, Nakajima and Yu do not teach or suggest why it would have been obvious (1) to modify Matsueda by adding a switching regulator control circuit comprising a second thin film transistor or why it would have been obvious to incorporate the switching regulator control circuit over the same substrate on which the pixel portion comprising a first thin film transistor 6 is formed; (2) to modify Sakurai such that liquid crystal drive power supply circuit 100 should comprise a thin film transistor over a substrate or why both the liquid crystal panel 180 (pixel portion) and the circuit 100 should be formed over the same substrate; or (3) to modify Tomio such that CPU 40 and internal power supply circuit 50 should comprise a thin film transistor over a substrate or why both panel 30 (pixel portion), CPU 40 and internal power supply circuit 50 should be formed over the same substrate.

Therefore, Matsueda, Sakurai or Tomio and Saito, Nakajima or Yu, either alone or in combination, do not teach or suggest that a pixel portion comprising a first TFT and a switching regulator control circuit comprising a second TFT are formed over the same substrate. Since Matsueda, Sakurai or Tomio and Saito, Nakajima or Yu do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be

maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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